Access DB# 163689

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Jose Fortuna Examiner #: 72391 Date: 8-24-05
Art Unit: 1731 Phone Number 30 272-1188 Serial Number 09/658,924
Mail Box and Bldg/Room Location: 7A-31 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

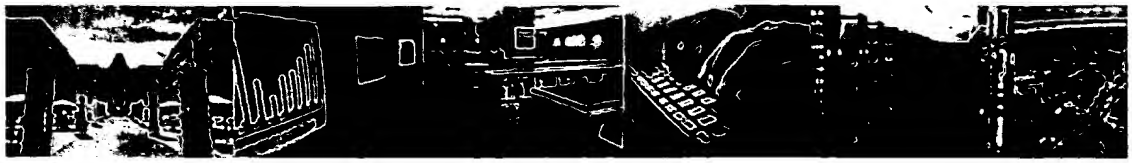
Please see attached.

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: ES	NA Sequence (#)		STN	$50.00
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	✓ (1)	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 8-25-05	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 5	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time: 55	Other		Other (specify)	

PTO-1590 (8-01)

Scientific & Technical Information Center



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163689

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Tech Center:

○ TC 1600 ◉ TC 1700 ○ TC 2100 ○ TC 2600 ○ TC 2800
○ TC 2900 ○ TC 3600 ○ TC 3700 ○ Law Lib ○ Other

Your Contact Information:
* indicates mandatory information.

Your Name: Jose Fortuna
*Email Address: jose.fortuna@uspto.gov
(e.g., Susan.Smith@uspto.gov)
*Employee No.: 72391
*Art Unit/Org.: 1731
*Office Location: REM 7D31
*Phone No.: 571-272-1188
Mailbox No.: 21188

SPE 1761

***Case serial number:** 09/658,924
If not related to a patent application, please enter NA here.

Class / Subclass(es) 162/070

Earliest Priority Filing Date: 09/15/1999

Format preferred for results:
☑ Paper ☐ Diskette ☑ E-mail

Provide detailed information on your search topic:

- In your own words, describe in detail the concepts or subjects you want us to search.
- Include synonyms, keywords, and acronyms. Define terms that have special meanings.
- *For Chemical Structure Searches Only*
  Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers
- *For Sequence Searches Only*
  Include all pertinent information (parent, child, divisional, or issued patent numbers) along with the ap serial number.
- *For Foreign Patent Family Searches Only*
  Include the country name and patent number.
- Provide examples or give us relevant citations, authors, etc., if known.
- FAX or send the **abstract, pertinent claims** (not all of the claims), **drawings, or chemical structur** EIC or branch library.

Enter your Search Topic Information below:

Compounds of claim 11, see newest claims.

Special Instructions and Other Comments:
(For fastest service, let us know the best times to contact you, in case the searcher needs further clarificati search.)

I need this ASAP, at least for the next week. I know that I need aproval from my SPE, how do I do that electrically?

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Submit comments and suggestions to Kristin Vajs

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Mellerson, Kendra

From: Fortuna, Jose
Sent: Wednesday, August 24, 2005 2:28 PM
To: STIC-EIC1700
Subject: Database Search Request

Requester:
Jose Fortuna (TC1700)
Art Unit:
1731
Employee Number:
72391
Office Location:
REM 7D31
Phone_Number:
571-272-1188
Mailbox Number:
21188

Case serial number:
09/658,924
Class / Subclass(es):
162/070
Earliest Priority Filing Date:
09/15/1999
Format preferred for results:
Paper
Search Topic Information:
Compounds of claim 11, see newest claims.
Special Instructions and Other Comments:
I need this ASAP, at least for the next week. I know that I need aproval from my SPE, how do I do that electrically?

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=> file reg
FILE 'REGISTRY'
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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     FILE 'REGISTRY'
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L3              STR L1
L4           50 S L3

     FILE 'HCAPLUS'
L5           43 S CUNKLE ?/AU
L6          456 S DEVORE ?/AU
L7        41159 S THOMPSON ?/AU
L8            2 S L5 AND L6 AND L7
                SEL L8 1-2 RN

     FILE 'REGISTRY'
L9           44 S E1-E44
L10      850016 S 46.156.1/RID
L11          26 S L9 AND L10
L12         994 S L3 FUL
                SAV L12 FOR924/A
L13           0 S L1 SSS SAM SUB=L12
L14          38 S L1 SSS FUL SUB=L12
                SAV L14 FOR924A/A

     FILE 'CAOLD'
L15           0 S L14

     FILE 'ZCAPLUS'
L16           9 S L14

     FILE 'REGISTRY'


=> d l14 que stat
L1              STR
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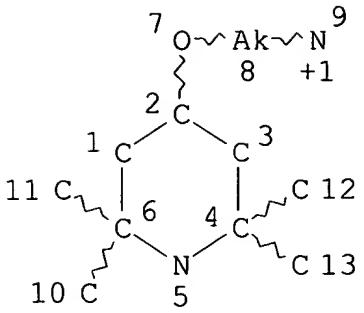
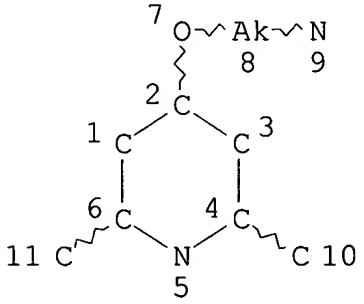


NODE ATTRIBUTES:
CHARGE IS E+1 AT 9
NSPEC IS RC AT 9
NSPEC IS RC AT 10
NSPEC IS RC AT 11
NSPEC IS RC AT 12
NSPEC IS RC AT 13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L3 STR



NODE ATTRIBUTES:
NSPEC IS RC AT 9
NSPEC IS RC AT 10
NSPEC IS RC AT 11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L12 994 SEA FILE=REGISTRY SSS FUL L3
L14 38 SEA FILE=REGISTRY SUB=L12 SSS FUL L1

100.0% PROCESSED 925 ITERATIONS 38 ANSWERS
SEARCH TIME: 00.00.01

=> file zcaplus
FILE 'ZCAPLUS'

=> d l16 1-9 all hitstr

L16 ANSWER 1 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:246731 ZCAPLUS
DN 142:446759
ED Entered STN: 22 Mar 2005
TI TEMPO-derived task-specific ionic liquids for oxidation of alcohols
AU Wu, Xue-E.; Ma, Li; Ding, Meng-Xian; Gao, Lian-Xun
CS State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Science and Graduate School of Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China
SO Synlett (2005), (4), 607-610
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
CC 21-2 (General Organic Chemistry)
Section cross-reference(s): 25
AB A novel 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO) radical bearing an ionic liq.-type appendage has been prepd., and its catalytic activity for the selective oxidn. of alcs. to the corresponding carbonyl compds. in ionic liq.-aq. biphasic conditions has been investigated. The ionic liq.-supported TEMPO radical shows catalyst properties similar to those of non-supported counterpart in terms of activity and selectivity, and can be easily recycled and reused without loss of activity and selectivity.
ST chemoselective oxidn alc TEMPO ionic liq; aldehyde ketone chemoselective prepn

IT Ionic liquids
Oxidation
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT Alcohols, reactions
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT Carbonyl compounds (organic), preparation
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT 2564-83-2, TEMPO
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT 91-01-0 98-85-1 100-51-6, Benzenemethanol, reactions 107-18-6, 2-Propen-1-ol, reactions 108-93-0, Cyclohexanol, reactions 111-87-5, 1-Octanol, reactions 589-18-4 616-47-7 619-73-8 2226-96-2 16308-92-2 17849-38-6
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT 35356-60-6P **851233-40-4P 851233-42-6P**
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
IT 89-98-5P 98-86-2P, preparation 100-52-7P, Benzaldehyde, preparation 104-87-0P 107-02-8P, 2-Propenal, preparation 108-94-1P, Cyclohexanone, preparation 119-61-9P, preparation 124-13-0P, Octanal 555-16-8P, preparation 15764-16-6P
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anelli, P; J Org Chem 1987, V52, P2559
(2) Anelli, P; J Org Chem 1987, V52, P2559
(3) Anelli, P; J Org Chem 1989, V54, P2970 ZCAPLUS
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(20) Hudlicky, M; Oxidations in Organic Chemistry 1990
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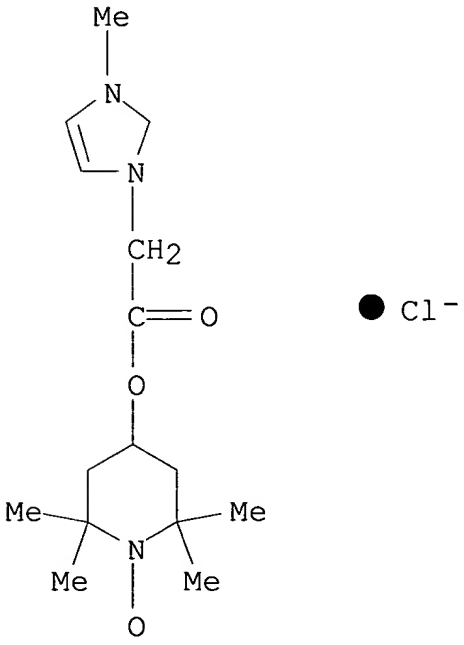
(25) Wierzbicki, A; Proceedings of the Symposium on Advances in Solvent Selection and Substitution for Extraction 2000
(26) Zhao, M; J Org Chem 1999, V64, P2564 ZCAPLUS

IT **851233-40-4P 851233-42-6P**
(chemoselective oxidn. of primary and secondary alcs. to aldehydes and ketones using TEMPO-derived ionic liqs.)

RN 851233-40-4 ZCAPLUS

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-[[(3-methyl-1H-imidazolium-1-yl)acetyl]oxy]-, chloride (9CI) (CA INDEX NAME)



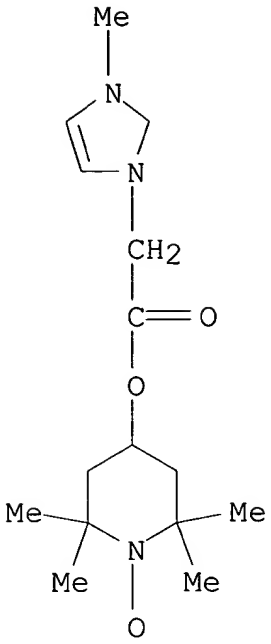
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 851233-42-6 ZCAPLUS

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-[[(3-methyl-1H-imidazolium-1-yl)acetyl]oxy]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

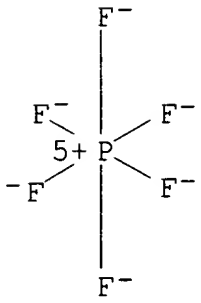
CRN 851233-41-5
CMF C15 H25 N3 O3



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



L16 ANSWER 2 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:208486 ZCAPLUS
DN 134:239198
ED Entered STN: 22 Mar 2001
TI Chlorohydrin and cationic compounds for pulp or paper stabilizing

Current Application

IN Cunkle, Glen Thomas; Devore, David; Thompson, Thomas Friend
PA Ciba Specialty Chemicals Holding Inc., Switz.
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM D21H021-14
ICS D21C009-00; C07D211-94; C07D401-04; C07D401-12; C07D471-10; C07D401-04; C07D211-00; C07D205-00; C07D471-10; C07D235-00; C07D221-00
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001020078	A1	20010322	WO 2000-EP8750	200009 07
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2382448	AA	20010322	CA 2000-2382448	200009 07
BR 2000014004	A	20020521	BR 2000-14004	200009 07
EP 1212486	A1	20020612	EP 2000-965939	200009 07
EP 1212486	B1	20050406		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003527326	T2	20030916	JP 2001-523442	200009 07
AU 777318	B2	20041014	AU 2000-76513	200009 07
AT 292707	E	20050415	AT 2000-965939	200009

	ZA 2002002061	A	20030910	ZA 2002-2061	07 200203 13
	US 2005092452	A1	20050505	US 2004-978673	200411 01
PRAI	US 1999-154112P	P	19990915		
	WO 2000-EP8750	W	20000907		
	US 2000-658924	A1	20000911		

Current application 60/154,112

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001020078	ICM	D21H021-14
	ICS	D21C009-00; C07D211-94; C07D401-04; C07D401-12; C07D471-10; C07D401-04; C07D211-00; C07D205-00; C07D471-10; C07D235-00; C07D221-00
WO 2001020078	ECLA	C07D211/94; C07D401/04+211+205; C07D401/12+211+205; C07D401/14R+211+205; C07D471/10+235B+221B; C08K005/3435+L97/00; D21H021/14B
US 2005092452	NCL	162/158.000
	ECLA	C07D211/94; C07D401/04+211+205; C07D401/12+211+205; C07D401/14R+211+205; C07D471/10+235B+221B; C08K005/3435+L97/00; D21H021/14B

AB Chlorohydrin and cationic compds. contg. nitroxide or hydroxylamine moieties are effective in stabilizing pulp or paper, esp. pulp or paper contg. lignin, against yellowing and discoloration due to the adverse effects of light. This performance is often further enhanced by the presence of one or more coadditives selected from the group consisting of the UV absorbers, the polymeric inhibitors, the nitrones, the fluorescent whitening agents and metal chelating agents. Thus 4-(2-dimethylamino)ethoxy-1-oxyl-2,2,6,6-tetramethylpiperidine was prepd. from 1-oxyl-4-hydroxy-2,2,6,6-teramethylpiperidine and used with citric acid, a metal chelating agent in BTMP sheet, showing good yellowing protection.

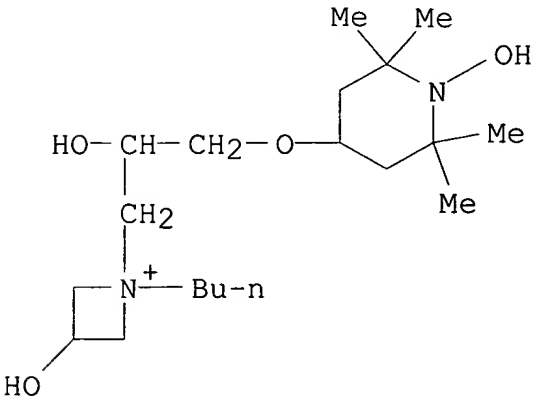
ST chlorohydrin cationic compd pulp paper stabilizing

IT Cellulose pulp
Paper
Stabilizing agents
(chlorohydrin and cationic compds. for pulp or paper stabilizing)

IT 329911-04-8P 329911-05-9P 329911-06-0P 329911-07-1P
329911-12-8P 329911-18-4P 329911-19-5P
(chlorohydrin and cationic compds. for pulp or paper stabilizing)

IT 122586-97-4P 329910-97-6P 329910-99-8P 329911-00-4P
329911-01-5P 329911-02-6P 329911-03-7P 329911-08-2P
329911-10-6P **329911-14-0P** 329911-16-2P 329911-17-3P

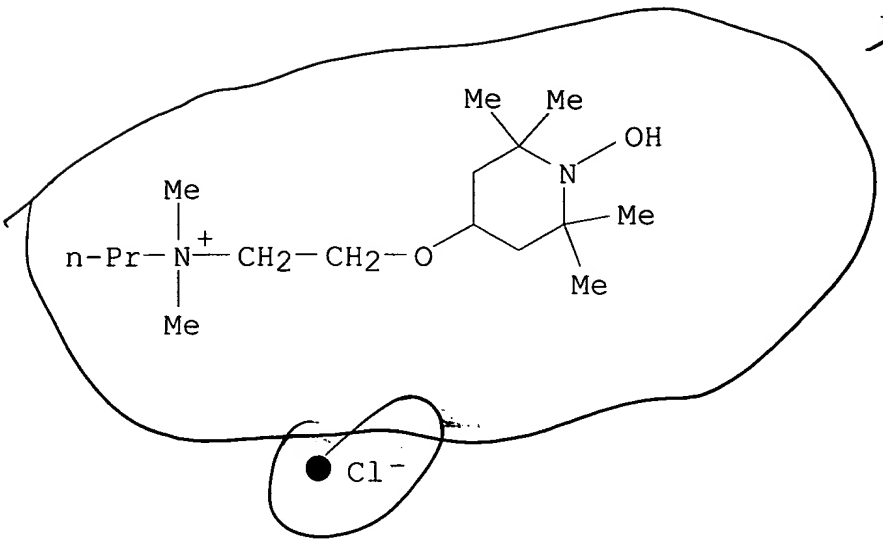
(chlorohydrin and cationic compds. for pulp or paper stabilizing)
IT 75-50-3, Trimethylamine, reactions 106-89-8, Epichlorohydrin, reactions 106-94-5 107-99-3 109-73-9, n-Butylamine, reactions 629-03-8 2226-96-2 15871-56-4 122413-85-8 122586-98-5 217190-43-7
(chlorohydrin and cationic compds. for pulp or paper stabilizing)
IT 329910-98-7P
(chlorohydrin and cationic compds. for pulp or paper stabilizing)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Ciba Geigy Ag; EP 0309401 A 1989 ZCAPLUS
(2) Ciba Geigy Ag; EP 0634399 A 1995 ZCAPLUS
(3) Ciba Geigy Ag; WO 9905108 A 1999 ZCAPLUS
(4) Emele, J; US 3755586 A 1973 ZCAPLUS
(5) Kato, T; JP 09-302026 A 1997 ZCAPLUS
(6) Klein; ZCAPLUS
(7) Klein; J PHARMACOL EXP THER 1989, V251(1), P207 ZCAPLUS
(8) Sankyo Co; EP 0006536 A 1980 ZCAPLUS
IT **329911-12-8P 329911-18-4P 329911-19-5P**
(chlorohydrin and cationic compds. for pulp or paper stabilizing)
RN 329911-12-8 ZCAPLUS
CN Azetidinium, 1-butyl-3-hydroxy-1-[2-hydroxy-3-[(1-hydroxy-2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]-, chloride (9CI) (CA INDEX NAME)



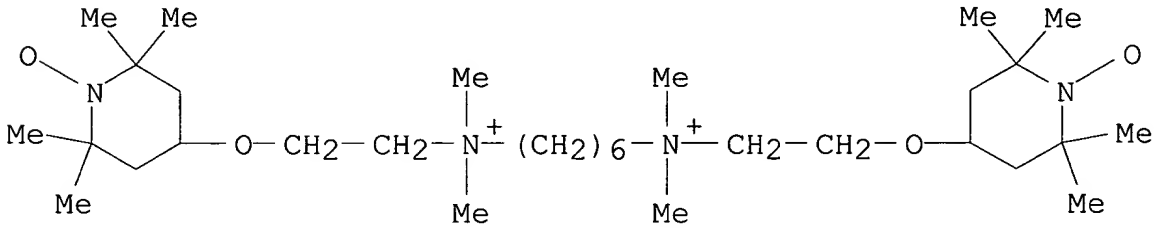
● Cl⁻

RN 329911-18-4 ZCAPLUS
CN 1-Propanaminium, N-[2-[(1-hydroxy-2,2,6,6-tetramethyl-4-piperidinyl)oxy]ethyl]-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)

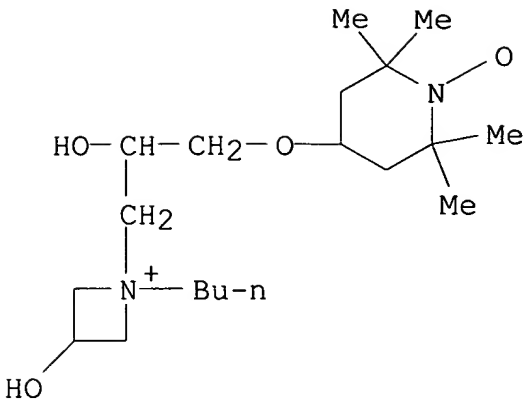
this is the Current application



RN 329911-19-5 ZCAPLUS
CN 1-Piperidinyloxy, 4,4'-[1,6-hexanediylbis[(dimethyliminio)-2,1-ethanediyloxy]]bis[2,2,6,6-tetramethyl-, dibromide (9CI) (CA INDEX NAME)



IT **329911-14-0P**
(chlorohydrin and cationic compds. for pulp or paper stabilizing)
RN 329911-14-0 ZCAPLUS
CN 1-Piperidinyloxy, 4-[3-(1-butyl-3-hydroxyazetidinio)-2-hydroxypropoxy]-2,2,6,6-tetramethyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

L16 ANSWER 3 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:96214 ZCAPLUS
DN 130:169756
ED Entered STN: 12 Feb 1999
TI Inhibition of pulp and paper yellowing using nitroxides and other co-additives
IN Seltzer, Raymond; Wolf, Jean-Pierre; Heitner, Cyril; Schmidt, John Alois; Mcgarry, Peter Francis; Cunkle, Glen Thomas; Nelson, Randall Bruce
PA Ciba Specialty Chemicals Holding Inc., Switz.
SO PCT Int. Appl., 195 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D211-94
ICS D21H021-14; D21C009-00; C07D405-12
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9905108	A1	19990204	WO 1998-EP4381	19980714

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,

TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA	2295631	AA	19990204	CA 1998-2295631	19980714
AU	9890660	A1	19990216	AU 1998-90660	19980714
AU	723502	B2	20000831		
EP	1000032	A1	20000517	EP 1998-942556	19980714

R: BE, CH, DE, ES, FR, GB, IT, LI, SE, FI

BR	9811525	A	20000905	BR 1998-11525	19980714
JP	2001510881	T2	20010807	JP 2000-504107	19980714
RU	2223985	C2	20040220	RU 2000-104506	19980714
ZA	9806521	A	19990125	ZA 1998-6521	19980722
TW	460641	B	20011021	TW 1998-87114815	19980907
US	6447644	B2	20020910	US 2001-974382	20011010
US	2002124980	A1	20020912		
PRAI US	1997-53489P	P	19970723		
US	1997-54968P	P	19970807		
WO	1998-EP4381	W	19980714		
US	1998-119567	A3	19980720		
US	2000-573401	A3	20000518		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9905108	ICM	C07D211-94
	ICS	D21H021-14; D21C009-00; C07D405-12
WO 9905108	ECLA	C07D211/94; C07D405/12+303+211; C08K005/3435+L97/00; D21C009/00B2D; D21H021/14B
US 6447644	NCL	162/158.000; 162/070.000; 162/071.000;

162/076.000; 162/077.000; 162/081.000;
162/160.000; 162/162.000; 162/164.600;
162/164.700; 162/165.000; 162/166.000;
162/167.000
ECLA C07D211/94; C07D405/12+303+211;
C08K005/3435+L97/00; D21C009/00B2D; D21H021/14B

OS MARPAT 130:169756

AB Pulps or papers, esp. semichem. or thermomech. pulps or papers, which still contain lignin, have enhanced resistance to yellowing when they contain an effective stabilizing amt. of a hindered amine compd. which preferably is a nitroxide, a hydroxylamine or an ammonium salt thereof. The yellowing resistance is often further enhanced by the presence of one or more co-additives selected from the group consisting of the UV absorbers, the polymeric inhibitors, the nitrones, the fluorescent whitening agents, metal chelating agents, S-contg. stabilizers, metal salts and diene compds. Combinations of nitroxides, hydroxylamines or their salts, benzotriazole or benzophenone UV absorbers and a metal chelating agent are particularly effective. Selected derivs. of 1-oxyl-2,2,6,6-tetramethylpiperidin-4-ol and selected hydroxylamine salts are novel compds. and are surprisingly effective for this purpose.

ST mech pulp yellowing preventer hindered amine; paper yellowing preventer hindered amine; nitroxide paper yellowing preventer; ammonium salt paper yellowing preventer; nitrone paper yellowing preventer; hydroxylamine paper yellowing preventer; light stabilizer hindered amine paper yellowing preventer; oxyl tetramethylpiperidinol paper yellowing preventer; discoloration prevention hindered amine paper thermomech pulp; free radical discoloration prevention paper thermomech pulp

IT Amines, preparation
(hindered; yellowing inhibitor for pulp and paper and manuf.)

IT Paper
Whitening agents
Yellowing prevention
(inhibition of pulp and paper yellowing using nitroxides and other co-additives)

IT Polyoxyalkylenes, uses
(inhibition of pulp and paper yellowing using nitroxides and other co-additives)

IT Cellulose pulp
(mech.; reactant for manuf. of yellowing inhibitor for pulp and paper)

IT Cellulose pulp
(thermomech.; inhibition of pulp and paper yellowing using nitroxides and other co-additives)

IT Chelating agents
UV stabilizers

(yellowing inhibitor for pulp and paper and manuf.)
IT Nitrones
Nitroxides
(yellowing inhibitor for pulp and paper and manuf.)
IT 131841-00-4, PAX 3008
(PAX 3008; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 131840-97-6, PAX 3036
(PAX 3036; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 122809-65-8, PAX 3123
(PAX 3123; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 122809-43-2, PAX 3136
(PAX 3136; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 132416-36-5, PAX 3156
(PAX 3156; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 122809-69-2, PAX 3267
(PAX 3267; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 76656-36-5, Uvinul 3048
(Uvinul 3048; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 131-54-4, 2,2'-Dihydroxy-4,4'-dimethoxybenzophenone
(Uvinul 3049; inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 181355-39-5
(a inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 2226-96-2P, 1-Oxyl-2,2,6,6-tetramethyl-4-hydroxypiperidine 2516-92-9P 2564-83-2P, TEMPO 3637-10-3P 4972-11-6P 14691-89-5P 150981-05-8P 220410-68-4P 220410-69-5P 220410-70-8P 220410-72-0P
(inhibition of pulp and paper yellowing using nitroxides and other co-additives)
IT 67-43-6, DTPA 79-42-5, Thiolactic acid 87-18-3 96-27-5, 1-Thioglycerol 104-98-3 107-96-0 110-44-1, 2,4-Hexadienoic acid 111-17-1, 3,3'-Thiodipropionic acid 118-56-9 118-60-5 123-81-9, Glycol dimercaptoacetate 131-53-3 131-55-5, 2,2',4,4'-Tetrahydroxybenzophenone 131-56-6, 2,4-Dihydroxybenzophenone 131-57-7 136-44-7 150-13-0, 4-Aminobenzoic acid 367-51-1, Sodium thioglycolate 1843-05-6 2122-49-8 2150-02-9, 2,2'-Oxydiethanethiol 2154-68-9, 3-Carboxy-2,2,5,5-tetramethyl-1-pyrrolidinyloxy 2161-90-2, 1-Methoxy-1,3-cyclohexadiene 2403-88-5, 2,2,6,6-Tetramethyl-4-hydroxypiperidine 2406-25-9, Di-tert-butyl nitroxide 2440-22-4

2516-88-3 2516-91-8 2564-88-7 2725-22-6 2886-59-1, 1-Methoxy-1,4-cyclohexadiene 2896-70-0 2985-59-3 3147-75-9, 2-(2-Hydroxy-5-tert-octylphenyl)-2H-benzotriazole 3225-26-1 3264-93-5 3317-61-1, 5,5-Dimethyl-1-pyrroline N-oxide 3376-24-7, N-tert-Butyl-.alpha.-phenylnitrone 3483-12-3, Dithiothreitol 3551-21-1, Bis(1-oxyl-2,2,6,6-tetramethylpiperidin-4-yl)isophthalate 3846-71-7 3864-99-1, 5-Chloro-2-(2-hydroxy-3,5-di-tert-butylphenyl)-2H-benzotriazole 3936-30-9 4065-45-6, 2-Hydroxy-4-methoxybenzophenone-5-sulfonic acid 4193-55-9, 4,4'-Bis[4-anilino-6-bis(2-hydroxyethyl)amino-s-triazin-2-yl]amino-2,2'-stilbenedisulfonic acid, disodium salt 4221-80-1 5232-99-5 5466-77-3 6197-30-4 6628-37-1 7487-88-9, Sulfuric acid magnesium salt (1:1), uses 7733-02-0, Zinc sulfate (ZnSO4) 7785-87-7, Manganese sulfate (MnSO4) 10193-99-4, Pentaerythritol tetrathioglycolate 10531-39-2, Di-tert-butyl hydroxylamine 16302-61-7 17102-64-6, Trans,Trans-2,4-Hexadien-1-ol 18796-03-7 21245-02-3, 2-Ethylhexyl 4-dimethylaminobenzoate 22504-50-3 22535-46-2, Sodium thiolactate 22977-67-9 23949-66-8 24938-55-4, Polymethylene sulfide 25322-68-3 25973-55-1, 2-(2-Hydroxy-3,5-di-tert-amylphenyl)-2H-benzotriazole 27503-81-7, 2-Phenyl-5-benzimidazole sulfonic acid 33007-83-9 37149-18-1 39753-68-9 39753-69-0 40289-91-6 40908-37-0 41025-56-3, Disodium methylene bis thiopropionate 42267-40-3, Sodium .beta.-mercaptopropionate 50613-98-4 51158-47-5 52326-65-5, 1-Acetyl-2,2,6,6-tetramethylpiperidin-4-one 52793-97-2 54606-49-4, 3-Aminomethyl-2,2,5,5-tetramethyl-1-pyrrolidinyloxy 57834-33-0 58882-17-0 63941-51-5 65265-85-2 65816-20-8 67845-93-6 68865-56-5 69119-80-8 70321-86-7 73851-98-6 73936-91-1, 2-(2-Hydroxy-3-.alpha.-cumyl-5-tert-octylphenyl)-2H-benzotriazole 82493-14-9 82678-02-2 84268-23-5 84268-36-0 88778-21-6 92484-48-5 92484-48-5, Cibafast W) 94134-93-7 94271-84-8 95407-69-5 96623-58-4 104810-48-2, Tinuvin" 1130 122413-85-8 123373-68-2 126463-38-5 128757-78-8 131452-29-4 132207-24-0 133121-95-6 144557-01-7 148236-67-3 153784-60-2 153784-61-3 153784-62-4 154186-10-4 178905-31-2 179552-49-9 182235-14-9 184840-94-6 192662-79-6, 4,6-Bis(2,4-dimethylphenyl)-2-(4-(3-dodecyloxy*-2-hydroxypropoxy)-2-hydroxyphenyl)s-triazine 204583-60-8 220410-71-9 220410-73-1 220410-74-2 220410-75-3 220410-76-4 220410-77-5 220410-78-6 220410-79-7 220410-80-0 220410-81-1 220410-82-2 220410-83-3 220410-84-4
(inhibition of pulp and paper yellowing using nitroxides and other co-additives)

IT 82050-42-8P 83646-11-1P 150981-00-3P 217496-11-2P 217496-12-3P 217496-13-4P 217496-14-5P 220410-85-5P **220410-86-6P** 220410-87-7P 220410-88-8P 220410-89-9P 220410-90-2P **220410-91-3P** **220410-92-4P** 220410-94-6P 220410-95-7P 220410-97-9P 220410-98-0P 220410-99-1P 220411-00-7P 220411-01-8P 220411-02-9P

220411-03-0P 220411-04-1P 220411-05-2P 220411-06-3P
220411-07-4P 220411-08-5P
(inhibition of pulp and paper yellowing using nitroxides and other coadditives)

IT 220410-93-5P
(intermediate for manuf. of yellowing inhibitor for pulp and paper)

IT 64-19-7, Acetic acid, reactions 67-48-1, (2-Hydroxyethyl)trimethylammonium chloride 68-10-0, Bromoacetate 77-92-9, Citric acid, reactions 105-36-2, Ethyl bromoacetate 105-45-3, Methyl acetoacetate 106-65-0 106-89-8, Epichlorohydrin, reactions 106-94-5, 1-Bromopropane 106-95-6, Allyl bromide, reactions 108-24-7 109-89-7, reactions 109-94-4, Ethyl formate 111-36-4, Butyl isocyanate 111-42-2, reactions 111-64-8, Octanoyl chloride 124-40-3, Dimethylamine, reactions 144-62-7, Ethanedioic acid, reactions 6290-49-9, Methyl methoxyacetate 6482-24-2, 2-Bromoethyl methyl ether 7646-69-7, Sodium hydride 7664-93-9, Sulfuric acid, reactions 13093-04-4, N,N'Dimethylhexamethylenediamine 15875-97-5, Trimethylammonium hydroxide 16024-55-8, 2-Methoxyethoxyacetyl chloride 17640-28-7, Methyl 2-methoxyethoxyacetate 36177-92-1, 4-Butylamino-2,2,6,6-tetramethylpiperidine 38870-89-2, Methoxyacetyl chloride 83343-61-7, Dibromohexane 102639-37-2
(reactant for manuf. of yellowing inhibitor for pulp and paper)

IT 124-41-4, Sodium methoxide 1310-73-2, Sodium hydroxide, uses 7647-01-0, Hydrogen chloride, uses
(reagent; reactant for manuf. of yellowing inhibitor for pulp and paper)

IT 6599-87-7P 87321-85-5P 220411-10-9P 220411-11-0P
220411-12-1P 220411-13-2P 220411-14-3P 220411-15-4P
220411-16-5P 220411-17-6P 220411-19-8P 220411-21-2P
220411-23-4P 220411-24-5P 220411-26-7P 220411-28-9P
(yellowing inhibitor for pulp and paper and manuf.)

IT 3637-11-4P, 1-Hydroxy-2,2,6,6-tetramethyl-4-oxopiperidine 113682-53-4P 132416-55-8P 220411-09-6P
(yellowing inhibitor for pulp and paper and manuf.)

IT 7803-49-8, Hydroxylamine, uses 30538-92-2
(yellowing inhibitor for pulp and paper and manuf.)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

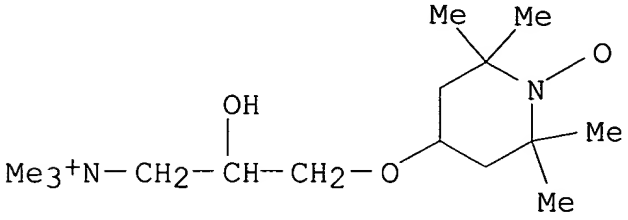
(1) BASF AG; DE 19510184 A 1996 ZCAPLUS
(2) Centre Technique de L'Industrie des Papiers, Cartons et Celluloses; FR 2636358 A 1990
(3) Ciba-Geigy AG; EP 0309401 A 1989 ZCAPLUS
(4) Ciba-Geigy AG; EP 0389429 A 1990 ZCAPLUS
(5) Hitoshi, I; JP 04362632 A ZCAPLUS
(6) Smith, F; US 3832277 A 1974 ZCAPLUS

IT **220410-86-6P 220410-91-3P 220410-92-4P**

(inhibition of pulp and paper yellowing using nitroxides and other coadditives)

RN 220410-86-6 ZCAPLUS

CN 1-Piperidinyloxy, 4-[2-hydroxy-3-(trimethylammonio)propoxy]-2,2,6,6-tetramethyl-, chloride (9CI) (CA INDEX NAME)

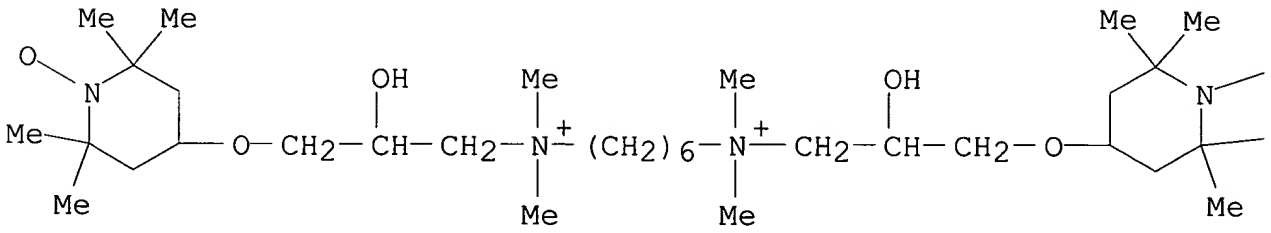


● Cl^-

RN 220410-91-3 ZCAPLUS

CN 1-Piperidinyloxy, 4,4'-[1,6-hexanediylbis[(dimethyliminio)(2-hydroxy-3,1-propanediyl)oxy]]bis[2,2,6,6-tetramethyl-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A



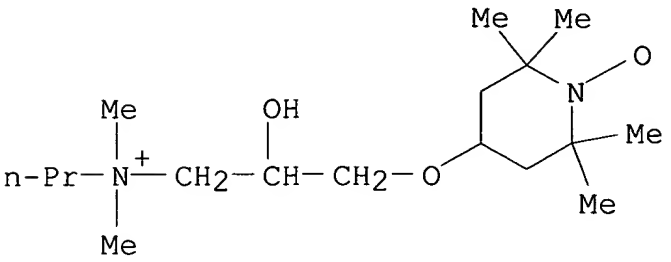
● 2 Br^-

PAGE 1-B

— O

— Me

RN 220410-92-4 ZCAPLUS
CN 1-Piperidinyloxy, 4-[3-(dimethylpropylammonio)-2-hydroxypropoxy]-2,2,6,6-tetramethyl-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

L16 ANSWER 4 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:31510 ZCAPLUS
DN 116:31510
ED Entered STN: 24 Jan 1992
TI Spirooxazine-type photochromic materials
IN Yamamoto, Shinichi; Taniguchi, Takashi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09K009-02
CC 74-9 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03066790	A2	19910322	JP 1989-203448	19890804

PRAI JP 1989-203448 19890804
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03066790	ICM	C09K009-02

AB The title photochromic materials are spirooxazine derivs. contg.

.gtoreq.1 functional groups selected from photostabilizer groups, antioxidant groups, singlet O deactivating groups, and triplet light quenching groups. These materials are useful in printing, optical instruments, recording, clothing, and decorative materials.

ST photochromic material spirooxazine; recording photochromic spirooxazine; printing photochromic spirooxazine

IT Photochromic substances
(spirooxazine derivs.)

IT 9011-14-7, Poly(methyl methacrylate)
(photochromic spirooxazine-incorporating)

IT **138220-38-9P**
(prepn. and reaction of, photochromic material from)

IT 138220-43-6P 138220-44-7P 138220-46-9P
(prepn. and reaction of, photochromic spirooxazine from)

IT 138220-31-2P 138220-32-3P 138220-33-4P 138220-34-5P
138220-35-6P 138220-36-7P 138220-37-8P 138245-22-4P
(prepn. and use of, as photochromic material)

IT 1640-39-7 27428-79-1 104989-11-9 138220-39-0 138220-41-4
138220-42-5
(reaction of, photochromic material from)

IT 5382-16-1, 4-Piperidinol
(reaction of, photochromic material intermediate from)

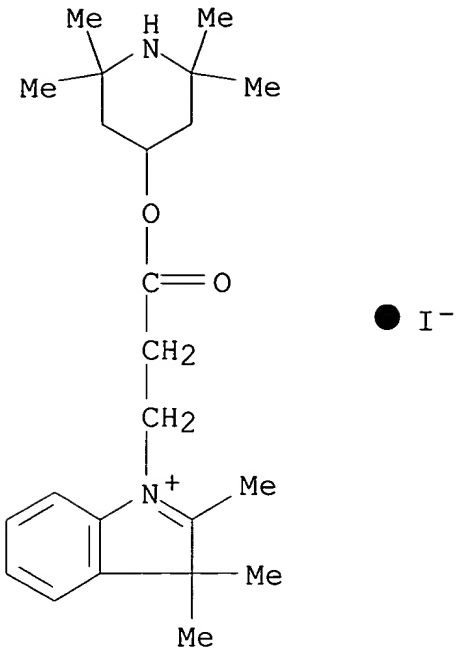
IT 111-50-2, Hexanedioyl dichloride 550-60-7 2403-88-5 36768-62-4
119266-79-4 138220-40-3
(reaction of, photochromic spirooxazine from)

IT 138220-45-8
(reaction of, photochromic spirooxazine intermediate from)

IT **138220-38-9P**
(prepn. and reaction of, photochromic material from)

RN 138220-38-9 ZCAPLUS

CN 3H-Indolium, 2,3,3-trimethyl-1-[3-oxo-3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]-, iodide (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:525852 ZCAPLUS
DN 101:125852
ED Entered STN: 13 Oct 1984
TI Motional dynamics of a spin labeled substrate analog bound to cytochrome P-450: saturation transfer EPR studies
AU Schwarz, D.; Pirrwitz, J.; Rein, H.; Ruckpaul, K.
CS Cent. Inst. Mol. Biol., Ger. Acad. Sci., Berlin-Buch, 1115, Ger. Dem. Rep.
SO Biomedica Biochimica Acta (1984), 43(3), 295-307
CODEN: BBIADT; ISSN: 0232-766X
DT Journal
LA English
CC 7-5 (Enzymes)
AB The rotational motion of the spin-labeled substrate analog n-propylisocyanide bound to the active center of cytochrome P 450 was studied by satn. transfer EPR. The obsd. motional rate characterized by an effective rotational correlation time .tau.R of .apprx.40 ns at 20.degree. is .gtoreq.3 orders of magnitude higher than the macromol. rotational diffusion of cytochrome P 450 in the microsomal membrane and represents a considerable motion in relation to the whole enzyme mol. The .tau.R value is independent on the degree of purifn. of the enzyme system, as revealed by measurements of (1) liver microsomes, (2) partially purified cytochrome P 450, and (3) cytochrome P 450 LM2, but shows a characteristic temp.

dependence in the case of microsomes resulting in breaks in the Arrhenius plot at temps. which correspond to phase transitions of the phospholipids. Apparently, the mobility of the bound substrate analog reflects a relatively high conformational flexibility of the substrate binding region which depends on the state of the lipids and can therefore be influenced by them. These results support the assumption that cytochrome P 450 is capable of forming manifold binding to substrate mols. differing in stereochem. structures because of the conformational flexibility of its binding region.

ST cytochrome P450 substrate analog mol dynamics

IT Phospholipids
(cytochrome P 450 assocn. with, in liver microsomes, phase transition and active site conformation in relation to)

IT Liver, composition
(cytochrome P 450 of microsomes of, conformational flexibility of active site of)

IT Microsome
(cytochrome P 450 of, conformational flexibility of active site of, phospholipids in relation to)

IT Conformation and Conformers
(of cytochrome P 450 active site, flexibility of, microsomal lipids in relation to)

IT Phase transition
(of phospholipids assocd. with cytochrome P 450 of liver microsomes)

IT Molecular dynamics
(of propylisocyanide bound to cytochrome P 450)

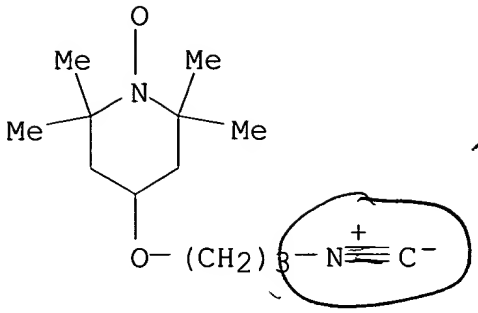
IT **71133-03-4**
(binding of, to cytochrome P 450, active site conformational flexibility in relation to)

IT 9035-51-2, biological studies
(substrate analog bound to, motional dynamics of, active site conformational flexibility and assocd. lipids in relation to)

IT **71133-03-4**
(binding of, to cytochrome P 450, active site conformational flexibility in relation to)

RN 71133-03-4 ZCAPLUS

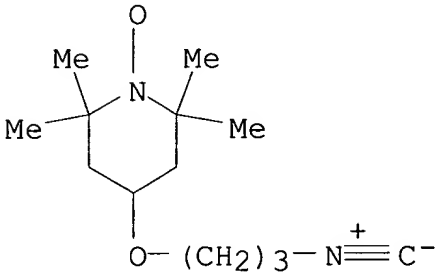
CN 1-Piperidinyloxy, 4-(3-isocyanopropoxy)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



Triple Bound
No within claimed invention

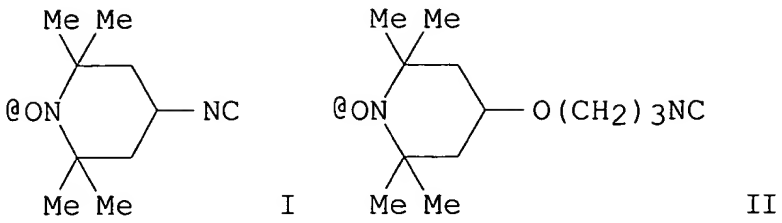
L16 ANSWER 6 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1979:486416 ZCAPLUS
DN 91:86416
ED Entered STN: 12 May 1984
TI Stereochemical properties of the binding site of liver microsomal cytochrome P-450 as studied by substrate analogs spin labels
AU Pirrwitz, J.; Lassmann, G.; Rein, H.; Jaenig, G. R.; Pecar, S.; Ruckpaul, K.
CS Cent. Inst. Mol. Biol., Ger. Acad. Sci., Berlin, 1115, Ger. Dem. Rep.
SO Acta Biologica et Medica Germanica (1979), 38(2-3), 235-47
CODEN: ABMGAJ; ISSN: 0001-5318
DT Journal
LA English
CC 7-5 (Enzymes)
Section cross-reference(s): 6
AB For characterization of the substrate binding site, optical and EPR measurements with spin-labeled substrates on solubilized and pure cytochrome P-450 were performed. Analogously to the unlabeled derivs., spin-labeled n-alkylamines and isocyanides with different chain lengths are type II substrates. The KS values evaluated from optical (P-450 = 1.98 .times. 10-6M) and ESR (P-450 = 1.98 .times. 10-4M) measurements are very similar, indicating no concn. dependences. Contrary to the unlabeled n-alkylamines, the spin-labeled compds. show an affinity almost independent of the chain lengths. The spin-labeled substrates with a short distance between the functional group and the NO-group bound to P-450 induce pronounced changes of the ligand field of the heme Fe and a large broadening of the signal of the immobilized nitroxide, indicating intensive interactions between the unpaired electron of the NO group and the paramagnetic heme Fe. Elongation of the alkyl chains results in spectra of the Fe3+ complexes with only slight modification and a still unbroadened signal of the immobilized NO group. The binding of the substrate through their functional groups together with a 1:1 stoichiometry of the P-450-spin-labeled isocyanide complex give evidence for the same binding site in the

near vicinity of the heme Fe.
ST cytochrome P450 substrate binding site; spin label cytochrome P450 ESR
IT Liver, composition
(cytochrome P-450 of microsomes of, substrate binding site of)
IT Microsome
(cytochrome P-450 of, of liver, substrate binding site of)
IT Electron spin resonance
Ultraviolet and visible spectra
(of spin-labeled cytochrome P-450 complexes)
IT 37654-42-5 55775-29-6 61948-25-2 65272-09-5 65272-10-8 **71133-03-4**
(cytochrome P 450 binding of, ESR of)
IT 9035-51-2, properties
(substrate binding site of, of liver microsome, ESR in relation to)
IT **71133-03-4**
(cytochrome P 450 binding of, ESR of)
RN 71133-03-4 ZCAPLUS
CN 1-Piperidinyloxy, 4-(3-isocyanopropoxy)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



L16 ANSWER 7 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1979:470842 ZCAPLUS
DN 91:70842
ED Entered STN: 12 May 1984
TI Spin-labeled isocyanides as stereochemical probes for the active center of cytochrome P-450
AU Pirrwitz, J.; Rein, H.; Lassmann, G.; Jaenig, G. R.; Pecar, S.; Ruckpaul, K.
CS Dep. Biocatal., Cent. Inst. Mol. Biol., Berlin-Buch, 1115, Ger. Dem. Rep.
SO FEBS Letters (1979), 101(1), 195-200
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English

CC 7-5 (Enzymes)
GI



AB Two spin-labeled isocyanides (I) and (II) with different chain lengths between the isocyanide and the spin-label groups were used as probes of the active site of P-450. Both isocyanides bind with high affinity to the active site, but only I, the label with the shorter distance between the isocyanide and the spin-label, shows a strong magnetic interaction of the spin-label group with the paramagnetic heme Fe. Studies using a solubilized, partially purified and an electrophoretically homogeneous P-450 (LM2) showed that only LM2 binds isocyanide II with a 1:1 stoichiometry as detd. from a Scatchard plot.

ST cytochrome P450 spin label isocyanide; ESR cytochrome P450 spin label; active site cytochrome P450 ESR

IT Electron spin resonance
(of cytochrome P-450 active site, spin-labeled isocyanides as probes for)

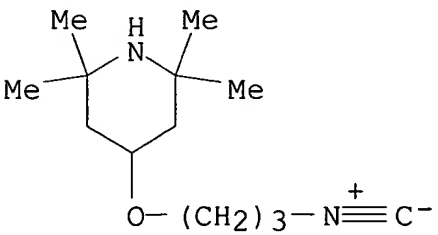
IT 9035-51-2, biological studies
(active site of, spin-labeled isocyanides as probes for)

IT 37654-42-5 **71004-31-4**
(as spin-label, in cytochrome P-450 active site study)

IT **71004-31-4**
(as spin-label, in cytochrome P-450 active site study)

RN 71004-31-4 ZCAPLUS

CN Piperidine, 4-(3-isocyanopropoxy)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



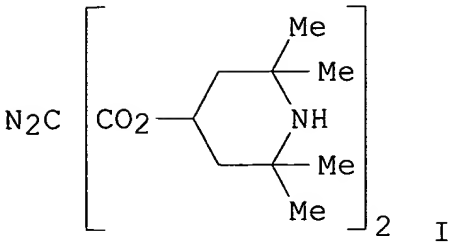
L16 ANSWER 8 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1978:137443 ZCAPLUS
DN 88:137443
ED Entered STN: 12 May 1984
TI Diazocarboxylic acid derivatives useful for stabilizing polymers
IN Malherbe, Roger; Rasberger, Michael
PA Ciba-Geigy A.-G., Switz.
SO Ger. Offen., 28 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07D211-16
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2727385	A1	19771229	DE 1977-2727385	197706 18
	US 4154722	A	19790515	US 1977-807960	197706 20
	FR 2355825	A1	19780120	FR 1977-19091	197706 22
	FR 2355825	B1	19800201		
	GB 1521855	A	19780816	GB 1977-26027	197706 22
	JP 52156873	A2	19771227	JP 1977-74924	197706 23
PRAI	CH 1976-8015	A	19760623		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2727385	IC	C07D211-16
US 4154722	NCL	524/099.000; 524/102.000; 524/103.000; 534/556.000; 546/190.000

GI



I

AB Diazoacetyl derivs. of hindered amino- or hydroxypiperidines are light stabilizers for polymers, which react with the polymers when heated at >100.degree. or irradiated with UV light. Thus, stirring 19.1 g bis(2,2,6,6-tetramethyl-4-piperidinyl) malonate [56677-79-3], 9.9 g p-MeC6H4SO3N3 [941-55-9], 7.1 mL Et3N, and 85 mL MeCN 24 h at room temp. gives bis(2,2,6,6-tetramethyl-4-piperidinyl) diazomalonate (I) [**65740-18-3**]. Polypropylene [9003-07-0] contg. 0.2 phr octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate and 0.25 phr I requires 14,170 h xenotest exposure to reach a carbonyl extinction coeff. (5.85.mu.) of 0.3, compared with 1050 h in the absence of I.

ST diazomalonate piperidinol light stabilizer; polypropylene light stabilizer; malonate reaction toluenesulfonyl azide

IT Light stabilizers
(piperidine diazoacyl derivs., for plastics)

IT 9003-07-0
(light stabilizers for, piperidine diazoacyl derivs. as)

IT **65740-18-3 65740-19-4 65740-21-8**
65740-22-9 65740-24-1 65740-25-2
65740-26-3 **65740-27-4 65740-28-5**
65740-29-6 65740-30-9 65740-34-3
65740-35-4 **65740-36-5** 65740-37-6 **65774-19-8**
(light stabilizers, for plastics)

IT 941-55-9
(reaction of, with piperidine acyl derivs.)

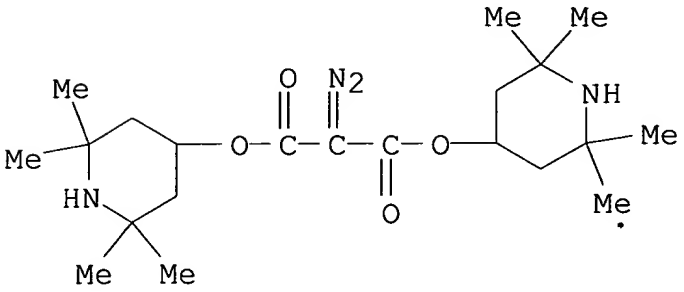
IT 56677-81-7 65374-31-4 65740-31-0 65740-32-1 65740-33-2
(reaction of, with toluenesulfonyl azide)

IT 56677-78-2 56677-79-3 63864-28-8 63864-30-2 65740-20-7
65740-23-0
(reaction of, with toluenesulfonylazide)

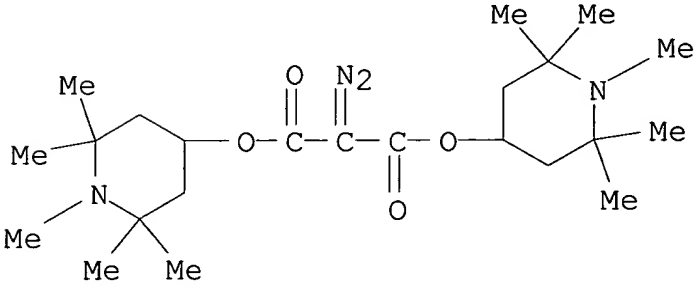
IT **65740-18-3 65740-19-4 65740-21-8**
65740-22-9 65740-24-1 65740-25-2
65740-27-4 65740-28-5 65740-29-6
65740-30-9 65740-34-3 65740-36-5
65774-19-8
(light stabilizers, for plastics)

RN 65740-18-3 ZCAPLUS

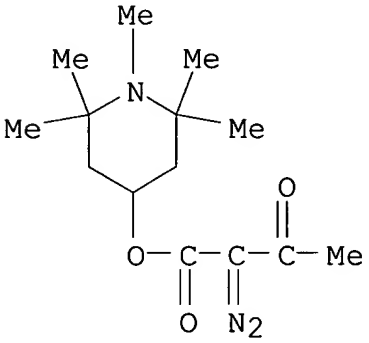
CN Propanedioic acid, diazo-, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



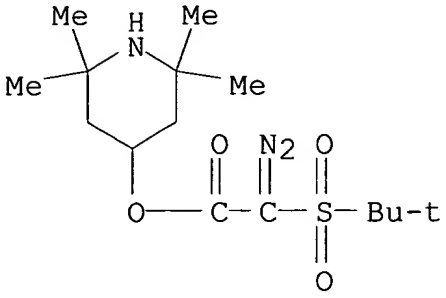
RN 65740-19-4 ZCAPLUS
CN Propanedioic acid, diazo-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



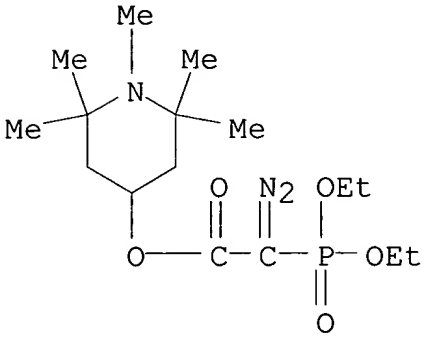
RN 65740-21-8 ZCAPLUS
CN Butanoic acid, 2-diazo-3-oxo-, 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



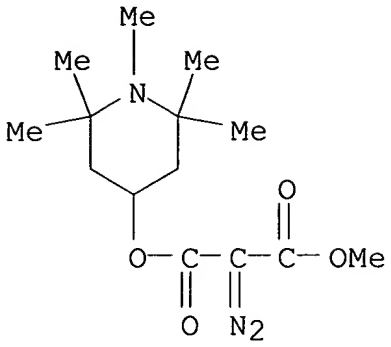
RN 65740-22-9 ZCAPLUS
CN Acetic acid, diazo[(1,1-dimethylethyl)sulfonyl]-, 2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



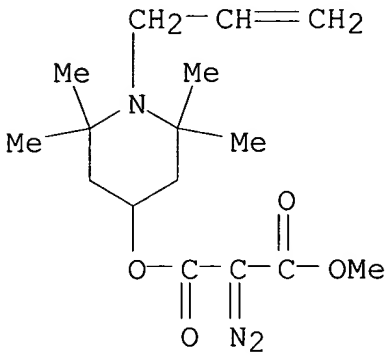
RN 65740-24-1 ZCAPLUS
CN Acetic acid, diazo(diethoxyphosphinyl)-, 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



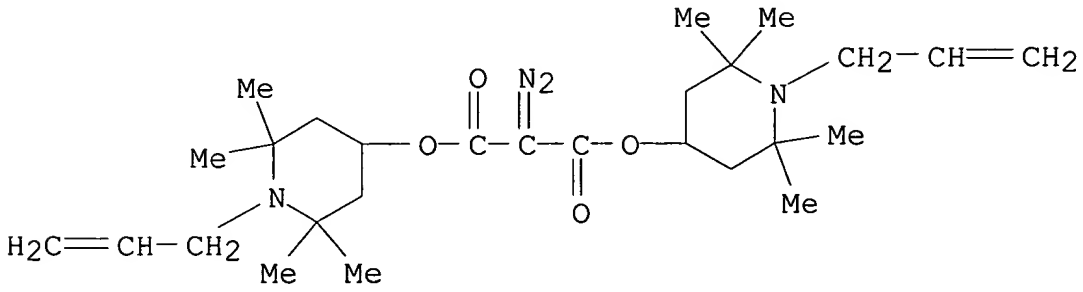
RN 65740-25-2 ZCAPLUS
CN Propanedioic acid, diazo-, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



RN 65740-27-4 ZCAPLUS
CN Propanedioic acid, diazo-, methyl 2,2,6,6-tetramethyl-1-(2-propenyl)-4-piperidinyl ester (9CI) (CA INDEX NAME)

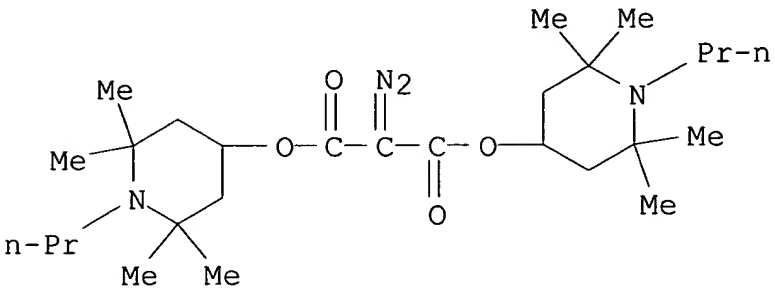


RN 65740-28-5 ZCAPLUS
CN Propanedioic acid, diazo-, bis[2,2,6,6-tetramethyl-1-(2-propenyl)-4-piperidinyl] ester (9CI) (CA INDEX NAME)

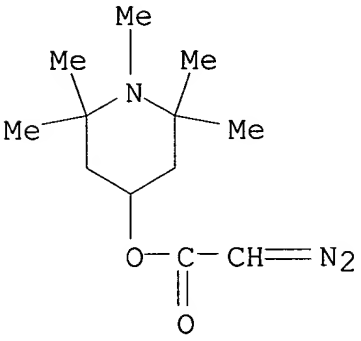


RN 65740-29-6 ZCAPLUS

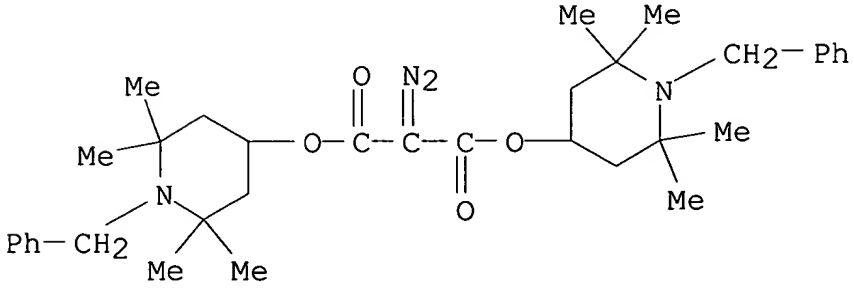
CN Propanedioic acid, diazo-, bis(2,2,6,6-tetramethyl-1-propyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



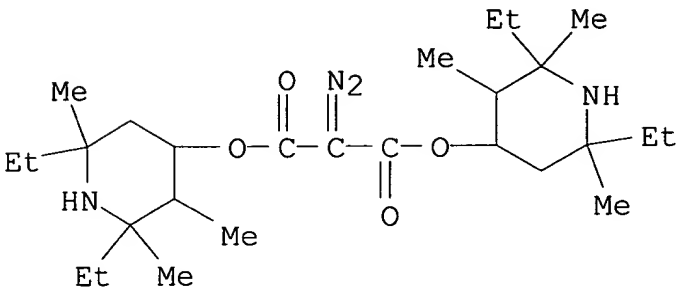
RN 65740-30-9 ZCAPLUS
CN Acetic acid, diazo-, 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



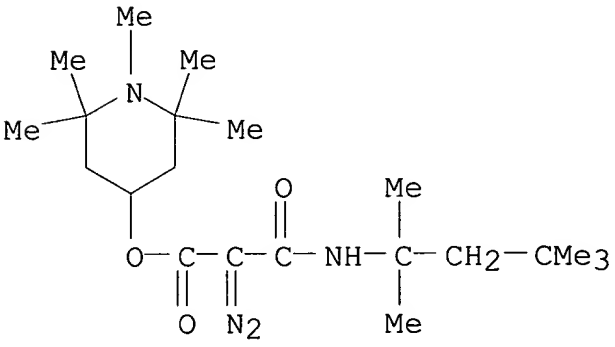
RN 65740-34-3 ZCAPLUS
CN Propanedioic acid, diazo-, bis[2,2,6,6-tetramethyl-1-(phenylmethyl)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 65740-36-5 ZCAPLUS
CN Propanedioic acid, diazo-, bis(2,6-diethyl-2,3,6-trimethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 65774-19-8 ZCAPLUS
CN Propanoic acid, 2-diazo-3-oxo-3-[(1,1,3,3-tetramethylbutyl)amino]-, 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



L16 ANSWER 9 OF 9 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 1972:85887 ZCAPLUS
DN 76:85887
ED Entered STN: 12 May 1984
TI Synthesis and some spin-labeled inhibitors and choline esterase substrate
AU Rozantsev, E. G.; Grigoryan, G. L.; Gusovskaya, T. P.; Godovikov, N. N.; Teplov, N. E.
CS Inst. Khim. Fiz., Moscow, USSR
SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1971), (10), 2334-6
CODEN: IASKA6; ISSN: 0002-3353
DT Journal
LA Russian

CC 29 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 27, 7, 13

AB Treating 2,2,6,6-tetramethyl-4-chloroacetoxypiperidinooxy with AcOCH2NMe2 in Et2O overnight gave I (R = Me, R1 = AcOCH2). Similar reaction with Et3N gave I (R = R1 = Et). MeP(O)(OEt)Cl, 2,2,6,6-tetramethyl-4-hydroxypiperidinooxy, and Et3N in Et2O overnight gave the corresponding mixed methylphosphonate ester. p-O2NC6H4OP(O)MeCl gave a similar mixed ester with the above hydroxyoxy radical. The products were spin-tagged structural units of inhibitors of cholinesterase activity.

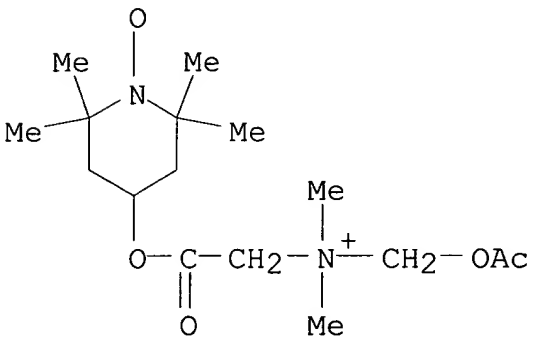
ST cholinesterase inhibitor; piperidino oxy quaternary amine; methyl phosphonate

IT **35369-83-6P 35369-84-7P** 35369-85-8P
35369-86-9P
(prepn. of)

IT **35369-83-6P 35369-84-7P**
(prepn. of)

RN 35369-83-6 ZCAPLUS

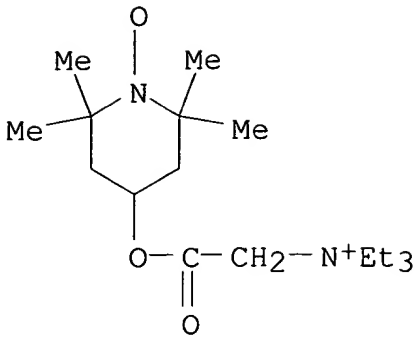
CN 1-Piperidinyloxy, 4-[[[[(acetyloxy)methyl]dimethylammonio]acetyl]oxy]-2,2,6,6-tetramethyl-, chloride (9CI) (CA INDEX NAME)



● Cl^-

RN 35369-84-7 ZCAPLUS

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-[[(triethylammonio)acetyl]oxy]-, chloride (9CI) (CA INDEX NAME)



● Cl^-